

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

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PAT & TM OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID E. HOLLAND and GAVIN W. SCHUTZ

Appeal No. 96-0255
Application No. 08/066,996¹

HEARD: December 7, 1998

Before HAIRSTON, JERRY SMITH, and FLEMING, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 20. In an Amendment After Final (paper number 8), claims 2 and 8 were amended.

The disclosed invention relates to a method and system for converting an anamorphic film image into a video output signal. A progressive raster scan is made of the film, and the scanned image is stored in memory. When a scan line is retrieved from

¹ Application for patent filed May 24, 1993.

memory it is combined with two adjacent scan lines. Each of the three scan lines may have substantially equal weights or one of the three scan lines may have a weight that differs from the other two scan lines. The three scan line combination is repeated until the complete image is formed into a video output signal.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A method for converting a two-to-one anamorphic film image into a video output signal having multiple video output lines, comprising the steps of:
 - (a) scanning the film image in a progressive scan, each scan comprising a scan line, using the non-anamorphic spacing between scan lines,
 - (b) storing the scan lines in memory,
 - (c) forming a video output line, each one of the video output lines being formed according to the following steps:
 - (1) for the first video output line, combining a first scan line with the two scan lines adjacent to the first scan line,
 - (2) for subsequent video output lines, combining a subsequent scan line differing from the previous scan line by $2n$ scan lines, where n equals 1 for a progressive output or 2 for an interlaced output, with the adjacent scan lines to said subsequent scan line, and
 - (3) repeating the preceding step (c)(2) until

Appeal No. 96-0255
Application No. 08/066,996

the image is formed into the video output signal.

The references relied on by the examiner are:

Diermann et al. (Diermann)	4,270,150	May 26, 1981
Poetsch	4,312,017	Jan. 19, 1982

Claims 1 through 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Poetsch in view of Diermann.

Reference is made to the brief and the answer for the respective positions of the appellants and the examiner.

OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection.

According to the examiner (Answer, page 3), "Poetsch discloses a method for converting a two-to-one anamorphic film image into a video output signal having multiple video output lines comprising the steps of scanning the film image in a progressive scan, each scan comprising a scan line, using the non-anamorphic spacing between scan lines (Column 1, Lines 44-55), storing the scan lines in memory (Column 1, Lines 56-57), and forming a video output line (Figure 1, Item 18)." The examiner acknowledges (Answer, page 3) that "Poetsch does not disclose the specifics of the processing of the video data according to the steps claimed in the instant invention."

Appeal No. 96-0255
Application No. 08/066,996

For the missing teachings, the examiner turns to Diermann.

The examiner indicates (Answer, pages 3 and 4) that:

Diermann et al. disclose producing a TV signal by processing stored image data, forming output video lines wherein for the first video output line a first scan line is combined with two scan lines adjacent to the first scan line (Column 75, Lines 48-50), the three scan lines being successive scan lines of a field (Column 13, Lines 15-16). Thus it is obvious that for subsequent video output lines the combining of scan lines takes place such that a subsequent scan line will differ from the previous scan line by $2n$ scan lines, where n equals 1 for a progressive output or 2 for an interlaced output. It is also obvious that in order to create a full reproduction of the film image the processing of the image data must continue until the image is formed into the video output signal. It is well known that special video processing techniques are required in order to provide adequate corrected and/or enhanced video reproductions of scanned film images. Among the known and accepted practices for such processing is the combining of scan lines to produce interpolations that correct and/or enhance the reproduced image.

From these teachings, the examiner concludes (Answer, page 4) that "it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of Diermann et al. for the combining of scan lines in the system of Poetsch to correct and/or enhance the video image data derived from scanning a film image."

Appellants argue (Brief, page 5) that "the secondary reference (Diermann) is not within the field of endeavor of the inventors, . . ." and "[t]he Diermann reference is directed to a wholly different task, namely the task of so-called comb filtering to separate out color information (chrominance and luminance signals), and not to the image quality enhancement function of Applicant's [sic, Applicants'] invention."

Appellants also argue (Brief, page 5) that "there is absolutely no teaching or suggestion in either of the references to combine those two teachings," and "the Examiner is using the teachings of Applicant[s] . . . which the Examiner may not properly do."

Inasmuch as Diermann is directed to an improvement over the well-known technique of using a telecine² to produce video still images (column 3, lines 7 through 51), we do not agree with appellants' argument that Diermann is from non-analogous art.

Diermann is concerned with digitally recording television signals on magnetic media "by sampling the information signal and converting the samples to a plurality of component digital data streams which are simultaneously recorded on separate surfaces of

² In appellants' disclosed invention (specification, pages 1 through 4), a telecine is used to convert motion picture film to an electronic form.

a disc pack associated with a generally standard computer disc drive and for thereafter reproducing the plurality of digital data streams and recombining the same in a manner whereby the analog video information signal is reconstructed" (Abstract). In a discussion of chroma separating and processing, Diermann states that "[g]iven three successive television lines A, B and C of a field, wherein the lines are within the saturated color region immediately above the color edge, a conventional comb filter generates the vectors representing chrominance in accordance with the relationship, $-1/4A+1/2B-1/4C$ " (column 73, lines 10 through 20). The inversion of the lines A and C and "subsequent summation of the vectors $+1/4A+1/2B+1/4C$ generates a full chrominance vector" (column 73, lines 21 through 25). A digital comb filter 701 is disclosed (column 74, lines 39 through 48) as part of a digital chrominance separating and processing system (Figure 17). During the chrominance separation, "the comb filter means 701 combines the three adjacent television lines A, B, C of previous mention" (column 75, lines 48 through 50).

Based upon the foregoing, we agree with appellants' arguments (Brief, page 5) that the chrominance signal processing of Diermann is directed to a "wholly different task" than the claimed invention, and that "there is absolutely no teaching or

Appeal No. 96-0255
Application No. 08/066,996

suggestion in either of the references to combine those two references." Even if we assume for the sake of argument that it would have been obvious to one of ordinary skill in the art to combine the teachings of the applied references, the combined teachings would still not yield the steps of claims 1 through 14 or the system elements of claims 15 through 20. In the absence of any evidence in the record to support the examiner's conclusions (Answer, pages 3 through 11) that these steps and elements were merely obvious or well known, we likewise agree with appellants' hindsight argument (Brief, pages 5 and 14). In summary, the obviousness rejection of claims 1 through 20 is reversed.

Appeal No. 96-0255
Application No. 08/066,996

DECISION

The decision of the examiner rejecting claims 1 through 20 under 35 U.S.C. § 103 is reversed.

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Appeal No. 96-0255
Application No. 08/066,996

David B. Murphy, Esq.
Lyon & Lyon LLP
633 West Fifth Street, Suite 4700
Los Angeles, CA 90017-2066